

REPORT ON THE PROPOSED VALIDATION OF THE GENERIC NAME  
*ENCRINUS* IN ITS ACCUSTOMED SENSE (CRINOIDEA). Z.N.(S.) 434

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The present case was first brought to the attention of the Commission's Office by the late Dr. Th. Mortensen in 1932, when he made an application to validate *Encrinus* as a generic name from Schultze, 1760, with *Encrinus liliiformis* Lamarck, 1801, as type-species. Dr. Mortensen at that time had consulted a large number of specialists in Echinoidea and had their support for his proposal. At the meeting of the Commission in Paris, 1948, during the Thirteenth International Congress of Zoology, Dr. Mortensen suggested that the application could better be submitted by a specialist in Crinoidea than by himself. This suggestion was accepted by the Commission and the Secretary was asked to find such a specialist so that a decision on whether or not to use the plenary powers in this case could be taken as soon as possible (*Bull. zool. Nomencl.* 4 : 513).

2. After the Paris meeting, the late Secretary to the Commission (Mr. Francis Hemming) made a number of attempts to find an interested specialist who would inform the Commission of the status of the name *Encrinus* under the Rules and a request for information was published in *Bull. zool. Nomencl.* 7 : 216-217, but without success. Public Notice of the possible use of the plenary powers was several times given but without eliciting any objection to Dr. Mortensen's proposal.

3. *Encrinus* is a very well-known generic name used by biologists, geologists and palaeontologists since pre-linnean times for a genus of fossil crinoids. The first post-linnean author to use it was C. F. Schultze, 1760 (*Betrachtung der versteinerten Seesterne und ihrer Theile* : 21). Schultze used the name only once (in the form *Encrinum*), not as a generic name, and furthermore Schultze's book is non-binominal. Fisher (1908, *Smiths. misc. Coll.* 52 : 91-93) discussed at length the status of Schultze, 1760, and pointed out that most of the names are derived directly from Linck (1733, *De Stellis Marinis*) and are given in the same non-binominal manner. Those which seem to be binominal are not generic and specific names, but are descriptive terms applied to "generic" names mentioned earlier in the work. Fisher considered the effect on starfish nomenclature of the rejection of the work and cited three generic names—*Pentaceros*, *Astropecten* and *Pentagonaster*—as being at that time in general use and dating from Schultze, 1760. He explained that these three names were easily replaced by *Oreaster* Müller and Troschel, 1842, *Astropecten* Gray, 1840 and *Goniaster* Agassiz (1836), respectively. *Pentaceros*, *Astropecten* and *Pentagonaster* are now no longer in use as from Schultze, 1760.

4. The discussion of the status of the name *Encrinus* was begun by Bather, 1898 (*Natural Science* 12 : 245), to whom Schultze appeared to be binominal. He therefore used *Encrinus* Schultze, 1760. Clark, 1908 (*Proc. U.S. nat. Mus.* 34 : 517), in his review of the nomenclature of the crinoids, rejected Schultze as non-binominal and pointed out that Andreae, 1763, used *Encrinus* in a binominal manner. In 1909 (*Ann. Mag. nat. Hist.* (8)3 : 308-310) Clark ignored Andreae

and accepted *Encrinus* from Blumenbach, 1779. This involved the transfer of the generic name to *Isocrinus* Agassiz, 1836, the genus in which *Isis asteria* Linnaeus, 1767, was then placed. Also in 1909, Springer (*Proc. U.S. nat. Mus.* 36 : 182-187) gave a very full account of the history of the name *Encrinus*. He considered that Schultze was non-binominal, and that Andreae's figured fragments were unrecognizable, but was prepared to use *Encrinus* dated from Schultze, 1760, in order to prevent confusion.

5. Bather in 1909 (*Ann. Mag. nat. Hist.* (8)4 : 37-42) admitted that Schultze was non-binominal but accepted *Encrinus* saying that it was perfectly clear what Schultze meant by the name and that terrible difficulties would arise if Schultze were not accepted. Bather urged that the case should be referred for decision to the Commission.

6. The first binominal author to use the generic name *Encrinus* was Andreae, 1763-4 *Briefe aus der Schweiz* published in the *Hannoversches Magazin* and later (1776) in book form. Andreae applied the name *Encrinus coralloides* to fragments of what seemed to him to be a hitherto unrecognized species of *Encrinus*. These fragments are now supposed to be the terminal stem branches or roots of *Millericrinus*. It cannot, however, be certainly known what species were represented by Andreae's fragments and so the name is considered to be a *nomen dubium*.

7. The next use of the generic name *Encrinus* was by Blumenbach *Handb. Naturgesch.*, 1779 (ed. 1) : 435 for a genus with three included species :—(1) *asteria*, a recent crinoid; (2) *mylii*, a pennatulid; (3) *boltenii* (with ref. to Linnaeus, 1771), an ascidian. The oldest available names for these species are (1) *Isis asteria* Linnaeus, 1767; (2) *Isis encrinus* Linnaeus, 1758; (3) *Vorticella ovifera* Linnaeus, 1767 (= *Vorticella bolteni* Linnaeus, 1771). In 1788, in the third edition of the *Handb. Naturgesch.* : 503, Blumenbach again used the generic name *Encrinus* but replaced the specific names *mylii* and *boltenii* with *radiatus* and *ovifer* respectively.

8. None of the species first included in *Encrinus* Blumenbach belongs to *Encrinus* in its current sense. *Isis asteria* Linnaeus, 1767 (*Syst. nat.* (ed. 12) 1 : 1288) is type-species of the genus *Cenocrinus* Wyville Thomson, 1864 (*The Intellectual Observer* 6 : 2). A. H. Clark, 1923 (*J. Wash. Acad. Sci.* 13 : 10) cited *Pentacrinites caput-medusae* Miller, 1821 as the type of Thomson's genus. This name dates from Lamarck, 1801 (as *Encrinus caput medusae*) and is a junior objective synonym of *Isis asteria* Linnaeus.

9. *Isis encrinus* Linnaeus, 1758 (*Syst. nat.* (ed. 10) 1 : 800) was placed in the genus *Umbellularia* by Lamarck, 1801, and is the type-species, by monotypy, of that genus (*Syst. anim. s. vert.* : 380). Lamarck published at the same time the specific name *Umbellularia groenlandica* as a replacement for, and therefore an objective synonym of, *Isis encrinus* Linnaeus. There is a family name *UMBELLULARIIDAE* based on the generic name *Umbellularia* Lamarck, first published by Lindahl, 1874 (*Ann. Mag. nat. Hist.* (4) 13 : 258) in the form *UMBELLULAE*.

10. The third species was placed in the genus *Boltenia* by Savigny in 1816. Savigny's genus contained two species : *Boltenia ovifera* (Linnaeus, 1767) (*Syst. Nat.* (ed. 12) 1 : 1319) and *Boltenia fusiformis* (a replacement name for

*Vorticella bolteni* Linnaeus). These species are considered to be synonymous and *Boltenia ovifera* (Linnaeus) was designated as type-species by Huntsman, 1912 (*Trans. canad. Inst.* 9 : 133).

11. Thus the adoption of the genus *Encrinus* Blumenbach would affect the nomenclature not only of the fossil and recent Crinoidea, but also of the Pennatulids and the Ascidians, and would necessitate the replacement of one of the following generic names: *Cenocrinus* (a recent crinoid), *Umbellularia* (a pennatulid), or *Boltenia* (an ascidian), all of which are familiar generic names and are in common use.

12. The first binominal use of *Encrinus* in its currently accepted sense was by Lamarck, 1801 (*Syst. Anim. s. vert.* : 379) who included two species: *Encrinus caput medusae* (a replacement name for *Isis asteria* Linnaeus) and the new species *Encrinus liliiformis* which has always been regarded as the type-species of *Encrinus*. The International Commission is now asked to use its plenary powers to preserve the generic name *Encrinus* in the sense in which it has been used since Lamarck, 1801 with *Encrinus liliiformis* as the type-species. There is in current use a family-group name ENCRINIDAE first published in the vernacular French as ENCRINIENS by Dujardin & Hupé, 1862 (*Hist. nat. Zoophytes*, Echinodermes : 161).

13. The International Commission on Zoological Nomenclature is therefore asked :—

(1) to use its plenary powers :

(a) to suppress for the purposes both of the Law of Priority and of the Law of Homonymy the following generic names :—

(i) *Encrinus* Andreae, 1763 (a nom. dub.) ;

(ii) *Encrinus* Andreae, 1776 (a nom. dub.) ;

(iii) *Encrinus* Blumenbach, 1779 ;

(iv) *Encrinus* Blumenbach, 1788 ;

(b) to set aside all type-selections for the genus *Encrinus* Lamarck, 1801, made prior to the Ruling now requested and having done so to designate *Encrinus liliiformis* to be the type-species of that genus ;

(2) to place the following generic names on the Official List of Generic Names in Zoology :—

(a) *Encrinus* Lamarck, 1801 (gender : masculine), type-species, by designation under the plenary powers in (1)(b), above, *Encrinus liliiformis* Lamarck, 1801 (Class Crinoidea) ;

(b) *Cenocrinus* Thonison, 1864 (gender : masculine), type-species by monotypy, *Isis asteria* Linnaeus, 1767 (Class Crinoidea) ;

(c) *Umbellularia* Lamarck, 1801 (gender : feminine) type-species, by monotypy, *Isis encrinus* Linnaeus, 1758 (Class Anthozoa) ;

(d) *Boltenia* Savigny, 1816 (gender : feminine) type-species, by designation by Huntsman, 1912, *Vorticella ovifera* Linnaeus, 1767 (Class Ascidiacea) ;

(3) to place the following specific names on the Official List of Specific Names in Zoology :—

(a) *liliiformis* Lamarck, 1801, as published in the binomen *Encrinus liliiformis* (type-species of *Encrinus* Lamarck, 1801) ;

- (b) *asteria* Linnaeus, 1767, as published in the binomen *Isis asteria* (type-species of *Cenocrinus* Thomson, 1864);
- (c) *encrinus* Linnaeus, 1758, as published in the binomen *Isis encrinus* (type-species of *Umbellularia* Lamarck, 1801);
- (d) *ovifera* Linnaeus, 1767, as published in the binomen *Vorticella ovifera* (type-species of *Boltenia* Savigny, 1816);
- (4) to place the following generic names on the Official List of Rejected and Invalid Generic Names in Zoology :—
  - (a) *Encrinus* Schultze, 1760 (a technically unavailable name, published by a non-binominal author in a non-binominal work);
  - (b) *Encrinus* Andreae, 1763, as suppressed under the plenary powers in (1)(a)(i) above;
  - (c) *Encrinus* Andreae, 1776, as suppressed under the plenary powers in (1)(a)(ii) above;
  - (d) *Encrinus* Blumenbach, 1779, as suppressed under the plenary powers in (1)(a)(iii) above;
  - (e) *Encrinus* Blumenbach, 1788, as suppressed under the plenary powers in (1)(a)(iv) above;
- (5) to place the following specific names on the Official Index of Rejected and Invalid Specific Names in Zoology :—
  - (a) *groenlandica* Lamarck, 1801, as published in the binomen *Umbellularia groenlandica* (a junior objective synonym of *Isis encrinus* Linnaeus, 1758);
  - (b) *caputmedusae* Lamarck, 1801, as published in the combination *Encrinus caput medusae* (a junior objective synonym of *Isis asteria* Linnaeus, 1767);
  - (c) *fusiformis* Savigny, 1816, as published in the binomen *Boltenia fusiformis* (a junior objective synonym of *Vorticella bolteni* Linnaeus, 1771);
- (6) to place on the Official Index of Rejected and Invalid Works in Zoological Nomenclature: Schultze (C. F.), 1760, *Betrachtung der Versteinerten Seesterne und ihrer Theile* (a work in which the author did not apply the principles of binominal nomenclature);
- (7) to place on the Official List of Family-Group Names in Zoology the following group-names :—
  - (a) UMBELLULARIDAE (correction of UMBELLULAE) Lindahl, 1874 (type-genus: *Umbellularia* Lamarck, 1801);
  - (b) ENCRINIDAE (correction of ENCRINIENS) Dujardin & Hupé, 1862 (type-genus: *Encrinus* Lamarck, 1801);
- (8) to place the following family-group names on the Official Index of Rejected and Invalid Family-Group Names in Zoology :—
  - (a) UMBELLULAE Lindahl, 1874 (an incorrect original spelling for UMBELLULARIIDAE);
  - (b) UMBELLULEAE Kölliker, 1875 (*Festschr. Phys.-Med. Ges. Würzburg*: 10) (an incorrect spelling for UMBELLULARIIDAE);
  - (c) ENCRINIENS Dujardin & Hupé, 1862 (an incorrect original spelling for ENCRINIDAE).